

Development of Beam Position Monitors for Heavy Ion Recirculators* F. DEADRICK, J. BARNARD, LLNL, T. FESSENDEN, LBL, J. MEREDITH, EG&G and J. RINTAMAKI, U of Michigan -- Non-intercepting beam position monitors are required for beam control in the operation of a small recirculating induction accelerator for heavy ions. This paper describes the design and development of a small four-segment capacitive probe to determine the position of a 80 keV-4 μ s long potassium ion beam pulse. The sensitivity and position linearity of the diagnostic for various mechanical and electrical configurations have been determined analytically. Other diagnostic techniques for recirculating accelerators will be discussed. Initial experimental results will be presented for a linear test configuration.

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